

Date: Tuesday, 10/30/2007 2:50:00 PM
 User: Kim Johnston

Process Sheet

46

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SHORT STEP ASSEMBLY HIGH SKID LH
 Job Number : 35449
 Estimate Number : 10575
 P.O. Number : N/A Part Number : D350591213
 This Issue : 10/30/2007 S.O. No. : N/A Drawing Number : D3078 REV A
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : LARGE FAB ASSY Drawing Revision : A
 Previous Run : 33508 Material : N/A
 Written By : Due Date : 11/15/2007 Qty: 5 Um: Each
 Checked & Approved By : 107 10 31
 Comment : Est Rev: 05.10.14 Modified step 10 KJ/EC
 Est Rev: C 06-06-19 Added D2732-030 AS PER DSI9294
 JLM
 Est Rev: C 06-06-27 Revised as per DSI9340 JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-213 CHG002

6 7/11/23

2.0 D2622120C Extrusion



Comment: Qty.: 0.5000 Each(s)/Unit Total : 2.5000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2622-120C

Extrusion 329607

3.34694

1407.11.16

5

3.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.

3-Deburr

1407.11.16

5

1407.11.19

5

1407.11.19

5

4.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

C 7/11/19 (45)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 35449

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3067-1

End Plate

335079

12-07-11-19 5

6.0

D30631

Support



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3063-1

Support

330892

12-07-11-19 5

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3072

A/R Aluminum Rod 1105058

3-Grind End Plate flush

12-07-11-19 5

12-07-11-19 5

SAD 07-11-20 5

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

12-07-11-20 (5)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

12-07-11-20 (5)

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SAD 07-11-20 (5)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 35449

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

KE 07-11-21 5

12.0

D3065041

Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

333510

KE 07-11-21 5

13.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

334447

KE 07-11-21 5

14.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 80.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W4

Rivet

M105953

KE 07-11-21 5

15.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Rivet Leg Assembly as per Dwg D3078.

KE 07-11-21 5

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

KE 07-11-21 5
(LH)

17.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3067-1

End Plate

335079

KE 07-11-21 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 35449

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3078

A/R Aluminum Rod M105058

4-Grind End Plate flush

Handwritten: 07-11-21 5
07-11-21 5
07-11-21 5
07-11-21 5

19.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

Handwritten: 07/11/21 (5)

20.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Handwritten: 07/11/21 (5) ALU

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch Up Chemical conversion

Handwritten: 07/11/21 (5) FL

22.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Handwritten: M105914

Handwritten: 07/11/22

23.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3078 and QSI 005 4.4

Handwritten: m106030

Handwritten: 07/11/22 (5) FL

24.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

Handwritten: 07/11/22 (5) FL

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 35449

Part Number: D350591213

Job Number:



Seq. #: Machine Or Operation: Description :

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Pick Packing Kit

26.0

D22301

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
2 D2230-1 Clamp 32163

SD

27.0

D22303

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
2 D2230-3 Clamp 135013

SD

28.0

D2732

Rubber Extrusion



Comment: Qty.: 1.0500 f(s)/Unit Total : 5.2500 f(s)
Pick: Packing Kit
Qty Part Number Description Batch
4 D2732-030(3" LONG) Rubber Cushion 134717

SD

29.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 3.0000 f(s)
Pick: Packing Kit
Qty Part Number Description Batch
1 D2856-400(7.2") Abrasion Strip 134642

SD

30.0

AN335A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit
Qty Part Number Description Batch
2 AN3-35A Bolt 1105408

SD 7/1/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 10/30/2007 2:50:00 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 35449

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

AN411A

Bolt



Comment: Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 AN4-11A

Bolt

M102280

sd

32.0

AN413A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Bolt

Batch: M105906

sd

33.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer M105792

sd

34.0

AN960JD416

Washer



Comment: Qty.: 12.0000 Each(s)/Unit Total : 60.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 AN960JD416

Washer M105426

sd

35.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21042L3

Nut (or -3) M104625

sd

36.0

MS21042L4

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 MS21042L4

Nut (or -4) M105054

sd

7/11/22

(5x)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: 42 Date: 8/11/23
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 10/30/2007 2:50:00 PM

User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHORT STEP ASSEMBLY HIGH SKID LH

Job Number: 35449

Part Number: D350591213

Job Number:



Seq. #:

Machine Or Operation:

Description :

37.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

C 7/11/23 (X5)

38.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-213

Location: _____

PPP Rev: _____

C 7/11/23 SP (5X)

39.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

(5) 7/11/23

Job Completion



U 07.11.23

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3078	REV. A SHEET 1 OF 2
DATE 02.09.11		TITLE STEP ASSEMBLY, HI SHORT SCALE NTS	
A	02.09.11	NEW ISSUE	

RELEASED
02.09.20 *#*

Part No.	Description	QTY -041	QTY -042
D3078-041	Step Assembly, High Short (LH)	X	
D3078-042	Step Assembly, High Short (RH)		X
D2622-60	STEP EXTRUSION	1	1
D3063-1	SUPPORT	1	1
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

GENERAL NOTES:

- 1) -041 SHOWN, FOR -042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

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WORK ORDER
NO. **35449**

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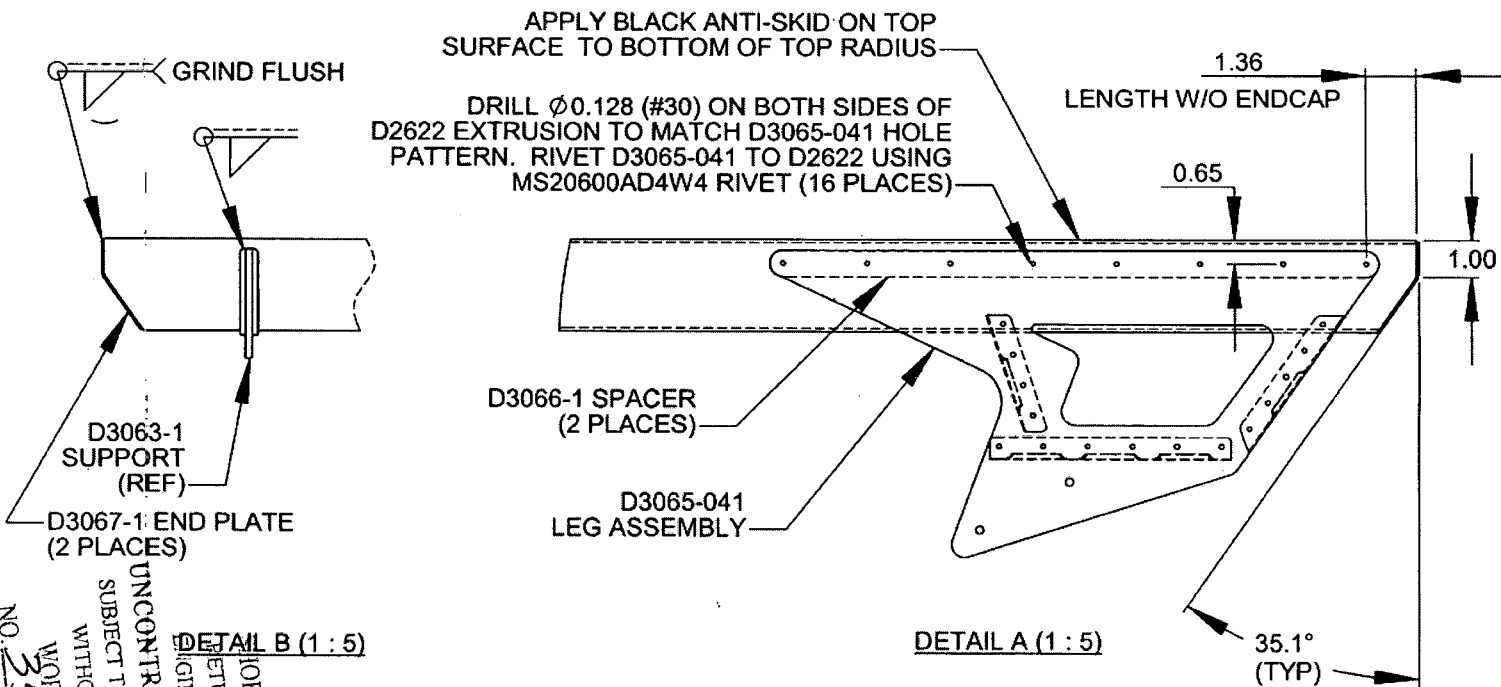
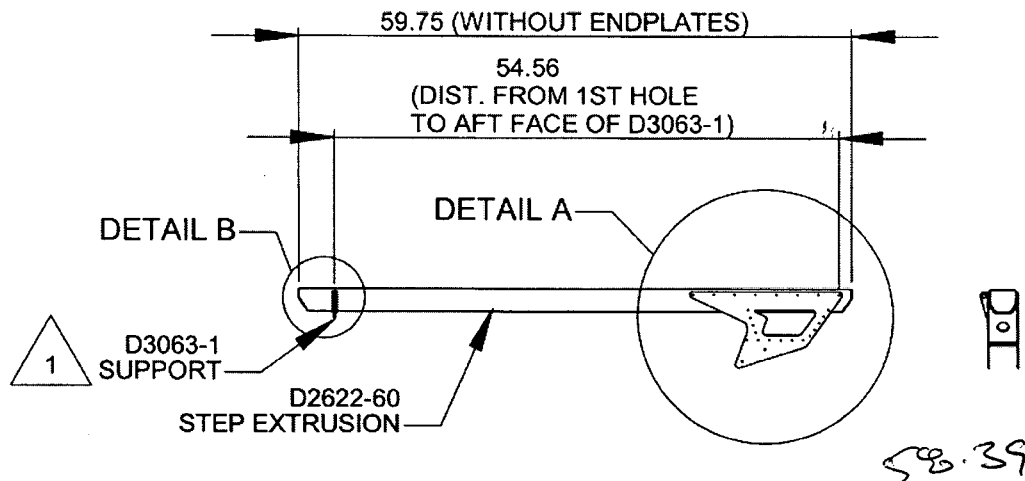
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DART



DESIGN	W	DRAWN BY	W	DART AEROSPACE LTD
				HAWKESBURY, ONTARIO, CANADA
CHECKED	W	APPROVED	W	
DATE	02.09.11			
		DRAWING NO.	D3078	REV. A
		TITLE	STEP ASSEMBLY, HI SHORT	SHEET 2 OF 2
				SCALE 1:20

RELEASED
02.09.2004



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WORK ORDER
NO. 35449

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 Job Number : 35449
 Estimate Number : 10575
 P.O. Number :
 This Issue : 10/30/2007 S.O. No. :
 Prsht Rev. : NC Part Number : D350591213
 First Issue : 1 / Type : LARGE FAB ASSY Drawing Number : D3078 REV A
 Previous Run : 33508 Drawing Revision : A
 Written By : Due Date : 11/15/2007 Qty: 5 Um: Each
 Checked & Approved By :
 Comment : Est Rev:B 05.10.14 Modified step 10 KJ/EC
 Est Rev:C 06-06-19 Added D2732-030 AS PER DSI9294
 JLM
 Est Rev:C 06-06-27 Revised as per DSI9340 JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-213 CHG002

07.10.31

2.0 D2622120C Extrusion



Comment: Qty.: 0.5000 Each(s)/Unit Total : 2.5000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2622-120C Extrusion

3.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.

3-Deburr

4.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

REFERENCE ONLY